

WHAT IS CLAIMED IS:

1. A display device with a power interruption delay function, comprising:
 - 2 a pulse width modulation controller for generating a pulse width modulation signal under the control of a microcomputer;
 - 4 a current amplifier for amplifying current in response to the pulse width modulation signal from said pulse width modulation controller;
 - 6 a horizontal/vertical processor for generating a square wave pulse signal under the control of said microcomputer;
 - 8 a horizontal driver for generating a drive pulse signal in response to the square wave pulse signal from said horizontal/vertical processor;
 - 10 a horizontal deflection coil for horizontally deflecting electron beams generated in said display device;
 - 12 a S-correction capacitor connected in series between said horizontal deflection coil and a ground terminal, for correcting a linearity of center-to-left and right sides of a screen;
 - 14 a horizontal output circuit for charging and discharging energy on said horizontal deflection coil and said S-correction capacitor in response to an output signal from said current amplifier and said drive pulse signal from said horizontal driver;
 - 16 a horizontal/vertical processor constant voltage circuit for supplying a constant voltage to said horizontal/vertical processor in response to an input voltage; and
 - 19 power interruption delay charging means for gradually lowering said input voltage to said horizontal/vertical processor constant voltage circuit when power supplied to said display device is interrupted.

1 2. The display device as set forth in claim 1, wherein said power interruption delay
2 charging means includes:

3 a polarity capacitor for performing a charging operation when power is supplied to said
4 display device and a discharging operation when the power supplied to said display device is
5 interrupted; and

6 a diode connected to said polarity capacitor, for preventing a voltage charged on said polarity
7 capacitor from being discharged to a power supply circuit when the power supplied to the display
8 device is interrupted.

1 3. A display device with a power interruption delay function, comprising:

2 a power supply circuit for converting a received commercial alternating current power into
3 a direct current input voltage;

4 a horizontal deflection circuit under the control of a microcomputer, receiving said direct
5 current input voltage, for horizontally deflecting electron beams generated in said display device;
6 and

7 power interruption delay charging means for gradually lowering said direct current input
8 voltage received by said horizontal deflection circuit when said alternating current power supplied
9 to said power supply circuit is interrupted, said power interruption delay charging means comprising:

10 a polarity capacitor for performing a charging operation when said alternating
11 current power is supplied and a discharging operation when said alternating current
12 power is interrupted; and

13 a diode connected to said polarity capacitor, for preventing a voltage charged
14 on said polarity capacitor from being discharged to said power supply circuit when
15 said alternating current power is interrupted.

1 4. The display device as set forth in claim 3, wherein said horizontal deflection circuit
2 comprises:

3 a pulse width modulation controller for generating a pulse width modulation signal under the
4 control of said microcomputer;

5 a current amplifier for amplifying current in response to said pulse width modulation signal
6 generated by said pulse width modulation controller;

7 a horizontal/vertical processor for generating a square wave pulse signal under the control
8 of said microcomputer;

9 a horizontal driver for generating a drive pulse signal in response to the square wave pulse
10 signal from said horizontal/vertical processor;

11 a horizontal deflection coil for horizontally deflecting said electron beams;

12 a S-correction capacitor connected in series between said horizontal deflection coil and a
13 ground terminal, for correcting a linearity of center-to-left and right sides of a screen;

14 a horizontal output circuit for charging and discharging energy on said horizontal deflection
15 coil and said S-correction capacitor in response to an output signal from said current amplifier and
16 said drive pulse signal from said horizontal driver; and

17 a horizontal/vertical processor constant voltage circuit for supplying a constant voltage to
18 said horizontal/vertical processor in response to said direct current input voltage, said direct current
19 input voltage being received through said power interruption delay charging means.

1 5. The display device as set forth in claim 4, wherein said current amplifier comprises:

2 a current amplification transformer having a primary coil and a secondary coil;

3 a field effect transistor having its gate terminal connected to one terminal of said secondary
4 coil;

5 one terminal of said primary coil being connected to an output terminal of said pulse width
6 modulation controller through a capacitor and another terminal of said primary coil being connected
7 to said ground terminal;

8 said field effect transistor having a drain terminal connected to a high voltage source and a
9 source terminal connected in common to a second terminal of said secondary coil and one side of
10 a pulse transformer;

11 said pulse transformer having a second side connected to one side of said horizontal
12 deflection coil;

13 a first diode connected between said source terminal and said drain terminal; and

14 a second diode connected between said second terminal of said secondary coil and said
15 ground terminal.

1 6. The display device as set forth in claim 5, wherein said horizontal output circuit
2 comprises a horizontal output transistor having a collector terminal connected in common to said
3 second side of said pulse transformer and said one side of said horizontal deflection coil, an emitter
4 terminal connected to said S-correction capacitor and said ground terminal, and a base terminal
5 connected to an output terminal of said horizontal driver for receiving said drive pulse signal.

1 7. The display device as set forth in claim 6, wherein said horizontal driver comprises:
2 a second field effect transistor having a gate terminal connected to receive said square wave
3 pulse signal from said horizontal/vertical processor, a source terminal connected to said ground
4 terminal, and a drain terminal;

5 a horizontal drive transformer having a primary coil and a secondary coil, said primary coil
6 having one terminal connected to a voltage source through a resistor and a second terminal
7 connected to said drain terminal of said second field effect transistor; and
8 said secondary coil of said horizontal drive transformer having one side connected to said
9 base terminal of said horizontal output transistor and a second side connected to said ground
10 terminal.

Add a